

Abstract Submitted
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Low Background Assay Results for LZ¹ KELSEY OLIVER-MALLORY, KEENAN THOMAS, Lawrence Berkeley National Laboratory and University of California Berkeley, LUX-ZEPLIN COLLABORATION, BERKELEY LOW BACKGROUND FACILITY TEAM — The next generation dark matter experiment LUX-ZEPLIN (LZ) requires careful control of intrinsic radioactivity in all critical detector components in order to reach its unprecedented target sensitivity to Weakly Interacting Massive Particles (WIMPs): $2 \times 10^{-48} \text{ cm}^2$ at $50 \frac{\text{GeV}}{c^2}$. Appropriate material selection is essential to meeting this goal, and an extensive campaign of low background screening is currently being carried out using assay devices at the Sanford Underground Research Facility and the Boulby Underground Laboratory. We will present results from this work, including measurements for the Ti cryostat, PMT bases, PMT raw materials, PTFE, and other components.

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